

FILE 'REGISTRY' ENTERED AT 13:32:02 ON 10 SEP 2010

EXP LAMINARTETRAOSE/CN
EXP LAMINARITETRAOSE/CN

L1 1 S E3

L2 1 S E6

EXP LAMINARIPENTAOSE/CN

L3 1 S E3 OR E7

FILE 'HCAPLUS' ENTERED AT 13:33:51 ON 10 SEP 2010

L4 8 S L2/THU OR L3/THU

L5 22 S L2/PREP OR L3/PREP

L6 18 S L5 AND (PY<2004 OR AY<2004 OR PRY<2004)

L7 3 S L6 AND L4

L8 15 S L6 NOT L7

```
=> file reg
COST IN U.S. DOLLARS          SINCE FILE      TOTAL
                               ENTRY      SESSION
FULL ESTIMATED COST          0.22      0.22
```

FILE 'REGISTRY' ENTERED AT 13:32:02 ON 10 SEP 2010
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
 COPYRIGHT (C) 2010 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
 provided by InfoChem.

```
STRUCTURE FILE UPDATES:    9 SEP 2010  HIGHEST RN 1240463-09-5
DICTIONARY FILE UPDATES:  9 SEP 2010  HIGHEST RN 1240463-09-5
```

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 26, 2010.

Please note that search-term pricing does apply when
 conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
 predicted properties as well as tags indicating availability of
 experimental property data in the original document. For information
 on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

```
=> exp laminartetraose/cn
E1      1      LAMINARITRIOSE/CN
E2      1      LAMINARITRIOSE, UNDECAACETATE/CN
E3      0 --> LAMINARTETRAOSE/CN
E4      1      LAMINASE/CN
E5      1      LAMINATED GLASS/CN
E6      1      LAMINATED OXIDE GLASS/CN
E7      1      LAMINET (MUS MUSCULUS DOMESTICUS GENE LMNT1 ISOFORM 1A)/CN
E8      1      LAMINET (MUS MUSCULUS DOMESTICUS GENE LMNT1 ISOFORM 1B)/CN
E9      1      LAMINET (MUS MUSCULUS DOMESTICUS GENE LMNT1 ISOFORM 1C)/CN
E10     1      LAMINET (MUS MUSCULUS DOMESTICUS GENE LMNT1 ISOFORM 1D)/CN
E11     1      LAMINET (MUS MUSCULUS DOMESTICUS GENE LMNT1 ISOFORM 1E)/CN
E12     1      LAMINET (MUS MUSCULUS DOMESTICUS GENE LMNT1 ISOFORM 1F)/CN
```

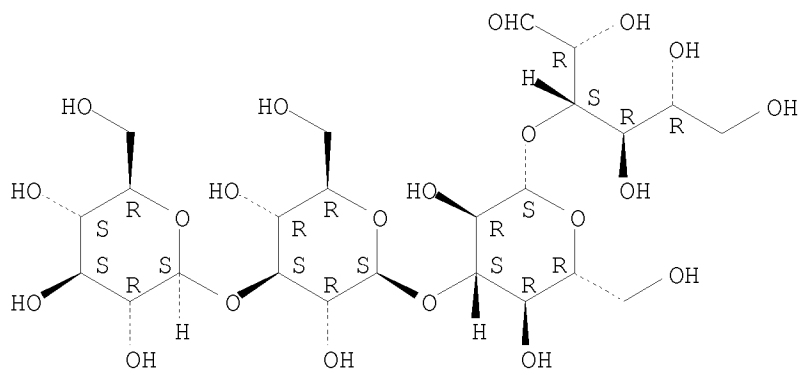
```
=> exp laminaritetraose/cn
E1      1      LAMINARIPENTOSE/CN
E2      1      LAMINARITETRAONIC ACID/CN
E3      1 --> LAMINARITETRAOSE/CN
E4      1      LAMINARITETRAOSE ALDITOL/CN
E5      1      LAMINARITETRAOSE, TETRADECAACETATE/CN
E6      1      LAMINARITETROSE/CN
E7      1      LAMINARITOL/CN
E8      1      LAMINARITRIOSE/CN
E9      1      LAMINARITRIOSE, UNDECAACETATE/CN
E10     1      LAMINASE/CN
E11     1      LAMINATED GLASS/CN
E12     1      LAMINATED OXIDE GLASS/CN
```

```
=> s e3
L1      1      LAMINARITETRAOSE/CN
```

=> d 11

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2010 ACS on STN
RN 26212-72-6 REGISTRY
ED Entered STN: 16 Nov 1984
CN D-Glucose, O- β -D-glucopyranosyl-(1 \rightarrow 3)-O- β -D-glucopyranosyl-(1 \rightarrow 3)-O- β -D-glucopyranosyl-(1 \rightarrow 3)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Laminaritetraose (6CI, 7CI, 8CI)
OTHER NAMES:
CN Laminara-tetraose
CN Laminaritetrose
FS STEREOSEARCH
MF C24 H42 O21
CI COM
LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

81 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
82 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s e6

L2 1 LAMINARITETROSE/CN

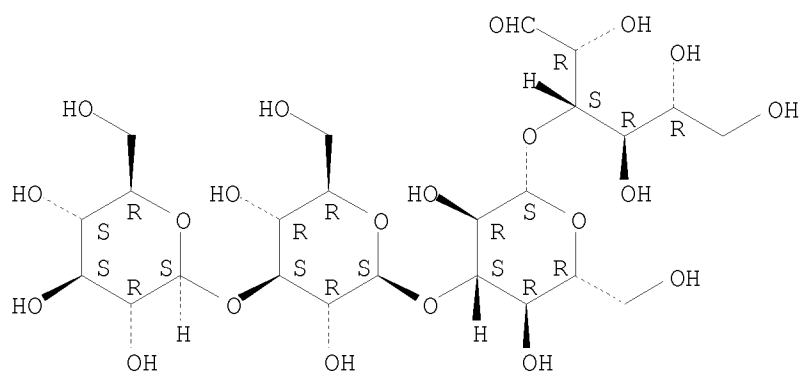
=> d 12

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2010 ACS on STN
RN 26212-72-6 REGISTRY
ED Entered STN: 16 Nov 1984
CN D-Glucose, O- β -D-glucopyranosyl-(1 \rightarrow 3)-O- β -D-glucopyranosyl-(1 \rightarrow 3)-O- β -D-glucopyranosyl-(1 \rightarrow 3)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Laminaritetraose (6CI, 7CI, 8CI)

OTHER NAMES:

CN Laminara-tetraose
 CN Laminaritetrose
 FS STEREOSEARCH
 MF C24 H42 O21
 CI COM
 LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS,
 CSCHEM, TOXCENTER, USPATFULL
 (*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

81 REFERENCES IN FILE CA (1907 TO DATE)
 4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 82 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> exp laminaripentaose/cn

E1	1	LAMINARIOSE/CN
E2	1	LAMINARIPENTAHYDROLASE/CN
E3	1	--> LAMINARIPENTAPOSE/CN
E4	1	LAMINARIPENTAPOSE ALDITOL/CN
E5	1	LAMINARIPENTAPOSE SULFATE/CN
E6	1	LAMINARIPENTAPOSE, HEPTADECAACETATE, B-/CN
E7	1	LAMINARIPENTOSE/CN
E8	1	LAMINARITETRAONIC ACID/CN
E9	1	LAMINARITETRAPOSE/CN
E10	1	LAMINARITETRAPOSE ALDITOL/CN
E11	1	LAMINARITETRAPOSE, TETRADECAACETATE/CN
E12	1	LAMINARITETROSE/CN

=> s e3 or e7

	1	LAMINARIPENTAPOSE/CN
	1	LAMINARIPENTOSE/CN
L3	1	LAMINARIPENTAPOSE/CN OR LAMINARIPENTOSE/CN

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	27.67	27.89

FILE 'HCAPLUS' ENTERED AT 13:33:51 ON 10 SEP 2010
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 10 Sep 2010 VOL 153 ISS 12
FILE LAST UPDATED: 9 Sep 2010 (20100909/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2010

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s 12/thu or 13/thu
      82 L2
      1289497 THU/RL
      6 L2/THU
        (L2 (L) THU/RL)
      100 L3
      1289497 THU/RL
      6 L3/THU
        (L3 (L) THU/RL)
L4      8 L2/THU OR L3/THU
```

```
=> d 14 1-8 ti abs bib
```

```
L4  ANSWER 1 OF 8  HCAPLUS  COPYRIGHT 2010 ACS on STN
TI  Oligomeric compounds and excipients
AB  The present invention provides method of optimizing the efficacy and
    potency of antisense compds. In certain embodiments, the invention
    provides assays useful for determining favorable oligonucleotide
characteristics
    and excipients for improved cellular uptake.
AN  2010:1002623  HCAPLUS <<LOGINID::20100910>>
TI  Oligomeric compounds and excipients
IN  Bennett, C. Frank; Geary, Richard S.; Swayze, Eric E.; Siwkowski, Andrew
    M.
PA  Isis Pharmaceuticals, Inc., USA
SO  PCT Int. Appl., 69pp.
    CODEN: PIXXD2
DT  Patent
LA  English
```

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2010091301	A1	20100812	WO 2010-US23383	20100205
	W:	AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
	RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRAI US 2009-150708P P 20090206

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Synthesis, immunological activities, and scavenging ability toward superoxide anion of (1 → 3)-β-D-pentaglucoside and its epoxyalkyl derivatives

AB Two epoxyalkyl (1→3)-β-D-pentaglucosides were synthesized via acetylation, glycosidation, oxidation, and deacetylation of (1→3)-β-D-pentaglucoside. The immunol. activities (superoxide anion production activity, phagocytic activity, and lymphocyte proliferation) and scavenging ability toward superoxide anion of (1→3)-β-D-pentaglucoside and its epoxyalkyl derivs. were compared. Superoxide anion released from human blood monocytes was measured by the reduction of ferricytochrome c. Phagocytosis by peritoneal macrophages was detected through a teal ingesting that measured the chicken red blood cells (CRBC). Lymphocyte proliferation was determined by the MTT method. The scavenging ability toward superoxide anions was evaluated by means of chemiluminescence (CL). The results showed that epoxyalkyl (1→3)-β-D-pentaglucosides had a little higher immunol. activity and scavenging ability toward superoxide anion than (1→3)-β-D-pentaglucoside, which indicated that the reducing end of the oligoglucosides was quite important for maximum biol. activity.

AN 2005:464987 HCAPLUS <<LOGINID::20100910>>

DN 143:90258

TI Synthesis, immunological activities, and scavenging ability toward superoxide anion of (1 → 3)-β-D-pentaglucoside and its epoxyalkyl derivatives

AU Huang, Gang-Liang; Liu, Man-Xi; Mei, Xin-Ya; Wang, Ying

CS Key Laboratory of Biomedical Photonics of Ministry of Education, Huazhong University of Science and Technology (East Campus), Wuhan, 430074, Peop. Rep. China

SO Bioorganic & Medicinal Chemistry (2005), 13(12), 3873-3877
CODEN: BMECEP; ISSN: 0968-0896

PB Elsevier Ltd.

DT Journal

LA English

OS CASREACT 143:90258

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Therapeutical treatment with oligo-beta- (1,3) -glucans, drugs used in

said treatment
AB A therapeutical method comprising administration of a composition comprising an amount of oligo- β -(1,3)-glucan and a pharmaceutically acceptable carrier, to a human being or to a warm-blood animal suffering from a disease selected from the group consisting in a tumor, a cancer, a viral disease, a bacterial disease, a fungal disease, a disease of the immune system, an auto-immune disease or a disease related to a deficiency of immunostimulation, wherein the amount of oligo- β -(1,3)-glucan is effective to treat the disease.

AN 2005:259652 HCAPLUS <<LOGINID::20100910>>

DN 142:309889

TI Therapeutical treatment with oligo-beta- (1,3) -glucans, drugs used in said treatment

IN Yvin, Jean-Claude; Jamois, Frank; Vetvicka, Vaclav

PA Fr.

SO U.S. Pat. Appl. Publ., 20 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050065114	A1	20050324	US 2003-668665	20030923
	WO 2005027936	A2	20050331	WO 2004-EP10995	20040916
	WO 2005027936	A3	20050728		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	EP 1663258	A2	20060607	EP 2004-787077	20040916
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
PRAI	US 2003-668665	A	20030923		
	WO 2004-EP10995	W	20040916		
OSC.G	2	THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)			

L4 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Characterisation of the Anticoagulant Properties of a Range of Structurally Diverse Sulfated Oligosaccharides

AB In this study, 17 sulfated oligosaccharides were assessed by the activated partial thromboplastin time (APTT) test for their anticoagulant activity and nine were found to exhibit significant activity. Chain length, monosaccharide makeup, and linkage all appear to be critical factors in determining

anticoagulant activity, with the most active compds. being five- to sixfold less potent than unfractionated heparin (UFH). Phosphomannopentaose sulfate (PI-88), one of the most active sulfated oligosaccharides and a promising anticancer drug, was selected for further study. PI-88 gave a more linear APTT dose-response curve and displayed less patient-to-patient variation than UFH, with its activity being neutralized by protamine sulfate. However, PI-88 showed considerable species-to-species variation in its anticoagulant effect. It was found that PI-88 acted as an anticoagulant by enhancing the ability of heparin cofactor II (HCII) to inhibit thrombin, and did not act via antithrombin

III (AT-III) in either inhibiting Factor Xa or thrombin. PI-88 also mildly prolonged the prothrombin time (PT), while it had no platelet pro-aggregatory activity, nor did it demonstrate direct fibrinolytic activity. Thus, PI-88 represents a potential antithrombotic agent deserving further study.

AN 2001:651835 HCAPLUS <<LOGINID::20100910>>

DN 136:63816

TI Characterisation of the Anticoagulant Properties of a Range of Structurally Diverse Sulfated Oligosaccharides

AU Wall, D.; Douglas, S.; Ferro, V.; Cowden, W.; Parish, C.

CS Research and Development Unit, Australian Red Cross Blood Service-Victoria, Melbourne, Australia

SO Thrombosis Research (2001), 103(4), 325-335

CODEN: THBRAA; ISSN: 0049-3848

PB Elsevier Science Inc.

DT Journal

LA English

OSC.G 24 THERE ARE 24 CAPLUS RECORDS THAT CITE THIS RECORD (24 CITINGS)

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Oligosaccharides, a process for preparation thereof and pharmaceutical combination containing the same compounds

AB This invention relates to the oligosaccharides with enhancing immune and antitumor activity. The described oligosaccharides have a main chain consisting of 3-14 sugar residues and side chains consisting of 0-4 sugar residues. The sugar residues are either the same or different. The described sugar residues on the main chain are linked through 1→3β or 1→4β linkage. The described side chains are linked with the main chain through 1→6β or 1→6α linkage. The described terminal group is hydroxyl or C1-12 alkoxyl group. This invention also involves the preparation of the described oligosaccharides, in the process 1,2:5,6-di-O-isopropylidene glucose is used as the starting material and the glycosyl acceptor and acylated sugars are used as the glycosyl donors for the preparation of said oligosaccharide. In addition, the pharmaceutical composition of the described oligosaccharides and their use as enhancing immune and antitumor agents, and as health maintaining products are involved.

AN 2001:453081 HCAPLUS <<LOGINID::20100910>>

DN 135:33006

TI Oligosaccharides, a process for preparation thereof and pharmaceutical combination containing the same compounds

IN Kong, Fanzuo; Ning, Jun

PA Research Center for Eco-Environmental Sciences, Academia Sinica, Peop. Rep. China

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2001044263	A1	20010621	WO 2000-CN224	20000807
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,				

CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CN 1303857	A	20010718	CN 1999-126224	19991216
CN 1129600	C	20031203		
CN 1306003	A	20010801	CN 2000-100376	20000119
CN 1159327	C	20040728		
PRAI CN 1999-126224	A	19991216		
CN 2000-100376	A	20000119		

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
 RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

TI β (1-3)-Glucan diagnostic assays

AB Methods of isolating β (1-3)-glucan or β (1-3)-glucan-containing organisms in a sample, or of detecting the presence of β (1-3)-glucan or β (1-3)-glucan-containing organisms in a sample, utilizing binding agents for β (1-3)-glucan, such as LacCer, GalCer, globotriaosylceramide and asialoganglioside-GM1, are described. Methods of diagnosing fungal infection, by detecting β (1-3)-glucan or β (1-3)-glucan-containing organisms, are also described. Antibodies and kits useful in the methods are also disclosed.

AN 1999:405173 HCAPLUS <<LOGINID::20100910>>

DN 131:43592

TI β (1-3)-Glucan diagnostic assays

IN Wakshull, Eric M.; Mackin, William M.; Zimmerman, Janet W.; Fisette, Leslie W.

PA Alpha-Beta Technology, Inc., USA

SO PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 6

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
PI WO 9931510	A1	19990624	WO 1998-US24014	19981112
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6084092	A	20000704	US 1997-990125	19971212
CA 2314342	A1	19990624	CA 1998-2314342	19981112
AU 9913967	A	19990705	AU 1999-13967	19981112
AU 740158	B2	20011101		
EP 1038180	A1	20000927	EP 1998-957794	19981112
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002508518	T	20020319	JP 2000-539356	19981112
PRAI US 1997-990125	A	19971212		
US 1997-797696	A2	19970131		
WO 1997-US7445	A2	19970501		
WO 1998-US24014	W	19981112		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Immunosuppressants containing heated carbohydrates having
 β -1,3-glucoside linkage
 AB Immunosuppressants contain heat-treated linear carbohydrates having
 β -1,3-glucoside linkage, e.g. curdlan hydrolyzates, as active
 ingredients. The action of immunosuppressants is based on suppression of
 lymphocytes. Curdlan hydrolyzates, prepared by decomposition of curdlan with
 HCO₂H and subsequent heating in H₂O at 100° for 10 min,
 significantly decreased nos. of viable B- and T-lymphocytes in incubation
 under stimulation with LPS and ConA, resp.

AN 1998:479907 HCAPLUS <<LOGINID::20100910>>

DN 129:104215

OREF 129:21281a,21284a

TI Immunosuppressants containing heated carbohydrates having
 β -1,3-glucoside linkage

IN Kajikawa, Akihiro; Kamenno, Masaki; Murosaki, Shinji; Kusaka, Hiroaki

PA Takeda Chemical Industries, Ltd., Japan; Takeda Shokuhin Kogyo K. K.;
 Kirin Food-Tech Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 10194976	A	19980728	JP 1997-6524	19970117
	JP 4091137	B2	20080528		
PRAI	JP 1997-6524		19970117		

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L4 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Structure and activity of sulfated alkyl oligosaccharide having potent
 anti-HIV activity

AB Hydrolysis in dilute HCl/DMSO of curdlan gave mixture of
 laminari-oligosaccharides, which by column chromatog. with
 charcoal/EtOH-H₂O gave laminaritetraose (I). Biochem. selective anal. by
 enzyme of curdlan gave laminaripentaose (II). Treatment of pure I with
 AcOK/Ac₂O gave peracylated laminearitetraoside (III) (β/α ratio
 3.2-3.8), which with alkyl alcs. by SnCl₄ catalyst gave peracetylated
 alkyl laminaritetraosides, V, VI, VII and VIII in 45, 55, 54 and 28 %
 yields, resp. Similarly, pure II gave peracetylated laminaripentaoside
 (IV), which with alkyl alcs. similarly gave peracetylated alkyl
 laminaripentasoides IX, X, XI, XII and XIII in 50, 54, 47, 55 and 70%
 yields, resp. Sulfated alkyl laminaritetraosides XIV, XV, XVI and XVII
 were synthesized by treatment of, V, VI, VII and VIII treated with
 NaOMe/MeOH, with N-SO₃/Pyridine. Similarly, sulfated alkyl
 laminaripentaosides XVIII, XIX, XX and XXII were synthesized. The
 anti-HIV activity of XIV-XXII was measured by using curdlan sulfate as
 reference. The anti-HIV activity of XIV-XVII decreased with shortening of alkyl
 portion under 8 of carbonic number. EC₅₀ value of XIV and XV was 24 and 14
 μ g/mL, resp. EC₅₀ value of XVI and XVII was 3.2 and 3.3 μ g/mL,
 resp., which was significantly lower than that of XVIII-XXII, resp.
 Structure of laminarioligosaccharides having more than pentasaccharides was
 important for high potent anti-HIV activity. XVIII and XIX having
 (+)-2-octyl and (-)-2-octyl portion, especially, both showed similar anti-HIV
 activity. Cytotoxic effect of all compds. tested was low. Usefulness of
 laminaripentaosides is discussed as anti-HIV active agents.

AN 1996:353110 HCAPLUS <<LOGINID::20100910>>

DN 125:104236

OREF 125:19219a,19222a

TI Structure and activity of sulfated alkyl oligosaccharide having potent
 anti-HIV activity

AU Katsuraya, Kaname; Uryu, Toshiyuki
CS Inst. Ind. Sci., Univ. Tokyo, Tokyo, 106, Japan
SO Seisan Kenkyu (1996), 48(3), 165-8
CODEN: SEKEAI; ISSN: 0037-105X
PB Tokyo Daigaku Seisan Gijutsu Kenkyusho
DT Journal
LA Japanese

```
=> s 12/prep or 13/prep
      82 L2
      5063133 PREP/RL
      10 L2/PREP
        (L2 (L) PREP/RL)
      100 L3
      5063133 PREP/RL
      21 L3/PREP
        (L3 (L) PREP/RL)
L5      22 L2/PREP OR L3/PREP
```

```
=> s 15 and (PY<2004 or AY<2004 or PRY<2004)
      24051624 PY<2004
      4834958 AY<2004
      4308922 PRY<2004
L6      18 L5 AND (PY<2004 OR AY<2004 OR PRY<2004)
```

```
=> d 16 adn 14
L4 IS NOT VALID HERE
For an explanation, enter "HELP DISPLAY".
```

```
=> d 16 and 14
L4 IS NOT VALID HERE
For an explanation, enter "HELP DISPLAY".
```

```
=> d 16 and 14
L4 IS NOT VALID HERE
For an explanation, enter "HELP DISPLAY".
```

```
=> s 16 and 14
L7      3 L6 AND L4
```

```
=> d 17 1-3 ti abs bib
```

L7 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2010 ACS on STN
TI Therapeutical treatment with oligo-beta- (1,3) -glucans, drugs used in said treatment
AB A therapeutical method comprising administration of a composition comprising an amount of oligo- β -(1,3)-glucan and a pharmaceutically acceptable carrier, to a human being or to a warm-blood animal suffering from a disease selected from the group consisting in a tumor, a cancer, a viral disease, a bacterial disease, a fungal disease, a disease of the immune system, an auto-immune disease or a disease related to a deficiency of immunostimulation, wherein the amount of oligo- β -(1,3)-glucan is effective to treat the disease.
AN 2005:259652 HCAPLUS <<LOGINID::20100910>>
DN 142:309889
TI Therapeutical treatment with oligo-beta- (1,3) -glucans, drugs used in said treatment
IN Yvin, Jean-Claude; Jamois, Frank; Vetvicka, Vaclav
PA Fr.
SO U.S. Pat. Appl. Publ., 20 pp.

CODEN: USXXCO

DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050065114	A1	20050324	US 2003-668665	20030923 <--
	WO 2005027936	A2	20050331	WO 2004-EP10995	20040916 <--
	WO 2005027936	A3	20050728		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1663258	A2	20060607	EP 2004-787077	20040916 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
PRAI	US 2003-668665	A	20030923	<--	
	WO 2004-EP10995	W	20040916		
OSC.G	2	THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)			

L7 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Oligosaccharides, a process for preparation thereof and pharmaceutical combination containing the same compounds

AB This invention relates to the oligosaccharides with enhancing immune and antitumor activity. The described oligosaccharides have a main chain consisting of 3-14 sugar residues and side chains consisting of 0-4 sugar residues. The sugar residues are either the same or different. The described sugar residues on the main chain are linked through 1→3β or 1→4β linkage. The described side chains are linked with the main chain through 1→6β or 1→6α linkage. The described terminal group is hydroxyl or C1-12 alkoxyl group. This invention also involves the preparation of the described oligosaccharides, in the process 1,2:5,6-di-O-isopropylidene glucose is used as the starting material and the glycosyl acceptor and acylated sugars are used as the glycosyl donors for the preparation of said oligosaccharide. In addition, the pharmaceutical composition of the described oligosaccharides and their use as enhancing immune and antitumor agents, and as health maintaining products are involved.

AN 2001:453081 HCAPLUS <<LOGINID::20100910>>

DN 135:33006

TI Oligosaccharides, a process for preparation thereof and pharmaceutical combination containing the same compounds

IN Kong, Fanzuo; Ning, Jun

PA Research Center for Eco-Environmental Sciences, Academia Sinica, Peop. Rep. China

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent
LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001044263	A1	20010621	WO 2000-CN224	20000807 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CR,				

CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
SE, SG, SI
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CN 1303857 A 20010718 CN 1999-126224 19991216 <--
CN 1129600 C 20031203
CN 1306003 A 20010801 CN 2000-100376 20000119 <--
CN 1159327 C 20040728
PRAI CN 1999-126224 A 19991216 <--
CN 2000-100376 A 20000119 <--

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2010 ACS on STN
TI Structure and activity of sulfated alkyl oligosaccharide having potent
anti-HIV activity
AB Hydrolysis in dilute HCl/DMSO of curdlan gave mixture of
laminari-oligosaccharides, which by column chromatog. with
charcoal/EtOH-H2O gave laminaritetraose (I). Biochem. selective anal. by
enzyme of curdlan gave laminaripentaose (II). Treatment of pure I with
AcOK/Ac2O gave peracylated laminearitetraoside (III) (β/α ratio
3.2-3.8), which with alkyl alcs. by SnCl4 catalyst gave peracetylated
alkyl laminaritetraosides, V, VI, VII and VIII in 45, 55, 54 and 28 %
yields, resp. Similarly, pure II gave peracetylated laminaripentaoside
(IV), which with alkyl alcs. similarly gave peracetylated alkyl
laminaripentasoides IX, X, XI, XII and XIII in 50, 54, 47, 55 and 70%
yields, resp. Sulfated alkyl laminaritetraosides XIV, XV, XVI and XVII
were synthesized by treatment of, V, VI, VII and VIII treated with
NaOMe/MeOH, with N-SO3/Pyridine. Similarly, sulfated alkyl
laminaripentaosides XVIII, XIX, XX and XXII were synthesized. The
anti-HIV activity of XIV-XXII was measured by using curdlan sulfate as
reference The anti-HIV activity of XIV-XVII decreased with shortening of alkyl
portion under 8 of carbonic number EC50 value of XIV and XV was 24 and 14
 $\mu\text{g/mL}$, resp. EC50 value of XVI and XVII was 3.2 and 3.3 $\mu\text{g/mL}$,
resp., which was significantly lower than that of XVIII-XXII, resp.
Structure of laminarioligosaccharides having more than pentasacharides was
important for high potent anti-HIV activity. XVIII and XIX having
(+)-2-octyl and (-)-2-octyl portion, especially, both showed similar anti-HIV
activity. Cytotoxic effect of all compds. tested was low. Usefulness of
laminaripentaosides is discussed as anti-HIV active agents.

AN 1996:353110 HCAPLUS <<LOGINID::20100910>>
DN 125:104236
OREF 125:19219a,19222a
TI Structure and activity of sulfated alkyl oligosaccharide having potent
anti-HIV activity
AU Katsuraya, Kaname; Uryu, Toshiyuki
CS Inst. Ind. Sci., Univ. Tokyo, Tokyo, 106, Japan
SO Seisan Kenkyu (1996), 48(3), 165-8
CODEN: SEKEAI; ISSN: 0037-105X
PB Tokyo Daigaku Seisan Gijutsu Kenkyusho
DT Journal
LA Japanese

=> d his

(FILE 'HOME' ENTERED AT 13:31:57 ON 10 SEP 2010)

FILE 'REGISTRY' ENTERED AT 13:32:02 ON 10 SEP 2010

EXP LAMINARTETRAOSE/CN
EXP LAMINARITETRAOSE/CN

L1 1 S E3
L2 1 S E6
EXP LAMINARIPENTAOSE/CN
L3 1 S E3 OR E7

FILE 'HCAPLUS' ENTERED AT 13:33:51 ON 10 SEP 2010

L4 8 S L2/THU OR L3/THU
L5 22 S L2/PREP OR L3/PREP
L6 18 S L5 AND (PY<2004 OR AY<2004 OR PRY<2004)
L7 3 S L6 AND L4

=> log hold

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	39.92	67.81
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-9.35	-9.35

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 13:35:08 ON 10 SEP 2010

Connecting via Winsock to STN

Welcome to STN International! Enter x:X

LOGINID:SSPTAEXO1623

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
SESSION RESUMED IN FILE 'HCAPLUS' AT 13:37:37 ON 10 SEP 2010
FILE 'HCAPLUS' ENTERED AT 13:37:37 ON 10 SEP 2010
COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS)s

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	39.92	67.81
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-9.35	-9.35

=> s l6 not l7

L8 15 L6 NOT L7

=> d l8 1-15 ti abs bib

L8 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN
TI Method for production of oligosaccharide from Laminaria japonica by adding
the cultured medium of escherichia coli transformed with vector
plk108s(kfcc-11303) or endo-beta-1,3-glucanase produced therefrom into
laminarin isolated from laminaria japonica

AB A method for production of oligosaccharide from Laminaria japonica is provided, thereby rapidly and high efficiently producing oligosaccharide from Laminaria japonica, which oligosaccharide is useful for food and medicine and food industry. The method for production of oligosaccharide from Laminaria japonica comprises the steps of: culturing Escherichia coli transformed with a vector pLK108S(KFCC-11303) in a medium; recovering endo-beta-1,3-glucanase from the supernatant of the cultured medium; extracting dried Laminaria japonica with hot water; adding ethanol into the extract of Laminaria japonica and centrifuging it at 5000 rpm for 20 min; sequentially filtrating the supernatant of the centrifuged culture medium with 0.1- μ m membrane, 100kD membrane and 1kD membrane to obtain the filtered active fraction; subjecting the active fraction to gel filtration to isolate laminarin; and adding the cultured medium of Escherichia coli transformed with a vector pLK108S (KFCC-11303) or endo-beta-1,3-glucanase produced therefrom into the laminarin isolated from Laminaria japonica, wherein the oligosaccharide is laminaribiose or laminaripentaose.

AN 2006:823637 HCAPLUS <<LOGINID::20100910>>

DN 145:291286

TI Method for production of oligosaccharide from Laminaria japonica by adding the cultured medium of escherichia coli transformed with vector plk108s(kfcc-11303) or endo-beta-1,3-glucanase produced therefrom into laminarin isolated from laminaria japonica

IN Baek, Geum Ok; Kim, Ki Hoon; Kim, Yea Oon; Lee, Dong Seok

PA Inje University, S. Korea

SO Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DT Patent

LA Korean

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	KR 2005000443	A	20050105	KR 2003-40923	20030624 <--
PRAI	KR 2003-40923		20030624	<--	

L8 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Dietary-fiber-degrading enzymes from a human intestinal Clostridium and their application to oligosaccharide production from nonstarchy polysaccharides using immobilized cells

AB The secretion of nonstarchy polysaccharide-degrading enzymes from an anaerobic human intestinal bacterium, Clostridium butyricum-beijerinckii (isolated from human feces), was investigated. Growth of the bacterium was found when laminarin, konjac glucomannan, and pectic acid were added sep. to the culture media as sole carbon source. The corresponding degrading enzymes for these dietary fibers, laminarinase (endo-1,3- β -glucanase), endo-1,4- β -mannanase, endo- and exo-pectate lyases, and pectin methylesterase, were then purified and characterized. These extracellular enzymes, which were secreted by the bacterium in the human large intestine, were considered to contribute to digestion of the ingested dietary fibers to their oligosaccharides, following by short-chain fatty acid fermentation by the bacterium. We have developed cell immobilization techniques of the bacterium on cellulose-foam carriers that are effective for continuous production of the oligosaccharides from the dietary fibers in a fed-batch reactor system. From 9 g of pectic acid, a total of 3.96 g of 4,5-unsatd. digalacturonic acid was produced over 40 h in four 500-mL batch cultures. In the same manner, the corresponding oligosaccharides were obtained from konjac glucomannan and laminarin with average conversion rates of around 30-40%.

AN 2002:589783 HCAPLUS <<LOGINID::20100910>>

DN 137:261951

TI Dietary-fiber-degrading enzymes from a human intestinal Clostridium and their application to oligosaccharide production from nonstarchy

polysaccharides using immobilized cells
 AU Nakajima, N.; Ishihara, K.; Matsuura, Y.
 CS Department of Nutritional Science, Okayama Prefectural University,
 Okayama, 719-1197, Japan
 SO Applied Microbiology and Biotechnology (2002), 59(2-3), 182-189
 CODEN: AMBIDG; ISSN: 0175-7598
 PB Springer-Verlag
 DT Journal
 LA English
 OS CASREACT 137:261951
 OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
 RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN
 TI Alkylaminarioligosaccharides manufacture with Streptomyces or enzyme
 AB Alkylaminarioligosaccharides (I) are com. manufactured from alkylglucosides
 and β -1,3-glucan with saccharide transferase of Streptomyces. I are
 useful as cosmetics and pharmaceuticals. Manufacture of
 docacyllamaritetraoside with SGTase of Streptomyces sp. DIC-108 was
 shown.

AN 1996:590479 HCAPLUS <<LOGINID::20100910>>
 DN 125:219771

OREF 125:41107a,41110a

TI Alkylaminarioligosaccharides manufacture with Streptomyces or enzyme
 IN Ebara, Takeshi; Nishibashi, Hideji; Shoji, Tadao
 PA Dainippon Ink & Chemicals, Japan
 SO Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08196290	A	19960806	JP 1995-10602	19950126 <--
PRAI	JP 1995-10602		19950126	<--	

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L8 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN
 TI Manufacture of laminaripentaose from β -1,3-glucosyl compounds with
 glucanase
 AB Laminaripentaose (I) is manufactured by treating β -1,3-glucosyl compds.
 with β -1,3-glucanase from Streptomyces sp. in presence of metal
 salts. Purified curdlan was treated with enzyme from S. matensis DIC-108
 in acetate buffer containing NaCl at 55° for 20 h to produce .apprx.45%
 I.

AN 1996:589765 HCAPLUS <<LOGINID::20100910>>
 DN 125:219778

OREF 125:41107a,41110a

TI Manufacture of laminaripentaose from β -1,3-glucosyl compounds with
 glucanase
 IN Ebara, Takeshi
 PA Dainippon Ink & Chemicals, Inc., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08191696	A	19960730	JP 1995-4845	19950117 <--

JP 3706948 B2 20051019
PRAI JP 1995-4845 19950117 <--

L8 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN
TI Laminaripentaose and its preparation with Streptomyces matensis producing β -1,3-glucanase
AB A method for the preparation of laminaripentaose by cultivating Streptomyces matensis strain DIC-108 in a pH range of 7.apprx.9 at 30.apprx.43° is described. A method for producing the enzyme (β -1,3-glucanase) associated with the biosynthesis of laminaripentaose with S. matensis strain DIC-108 is also shown.

AN 1996:513792 HCAPLUS <<LOGINID::20100910>>

DN 125:140673

OREF 125:26353a,26356a

TI Laminaripentaose and its preparation with Streptomyces matensis producing β -1,3-glucanase

IN Arai, Shigefumi; Ebara, Takeshi; Nishibashi, Hideji

PA Dainippon Ink & Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 08173153	A	19960709	JP 1994-325079	19941227 <--
	JP 3601618	B2	20041215		
PRAI	JP 1994-325079		19941227	<--	

L8 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN
TI Synthesis of sulfated alkyl oligosaccharides with high anti-HIV activity. Dependence on the alkyl group and the oligosaccharide chain
AB Sulfated alkyl laminari-oligosaccharides with potent anti-human immunodeficiency virus (HIV) activities were synthesized. In this study, we intended to synthesize highly anti-HIV active compds. using low mol. weight carbohydrates. To accomplish this aim, a surface-active agent type compound consisting of hydrophilic sulfated oligosaccharide and hydrophobic alkyl group portions was prepared Individual pure laminari-oligosaccharides from laminari-tetraose to -nonaose were used as the starting carbohydrate. Synthesis of peracetyl alkyl laminari-oligosaccharide was carried out with β -peracetylated laminari-oligosaccharides and corresponding alcs. by using stannic tetrachloride as a Lewis acid catalyst. Sulfation was performed by using sulfur trioxide-pyridine complex. Anti-HIV activities were assayed by means of MT-4 cells and HIV-1HTLV-III viruses. All sulfated alkyl laminari-oligosaccharides except for those having short alkyl chains such as Bu group, exhibited potent inhibitory effects on HIV infection. The anti-HIV activity of sulfated dodecyl and sulfated octadecyl laminari-pentaoside through laminari-nonaoside was almost equivalent, although only sulfated octadecyl laminari-pentaoside had a considerably high cytotoxicity. In addition, sulfated perfluoroalkyl laminari-oligosaccharides had highly anti-HIV activities and negligible cytotoxicities.

AN 1996:512618 HCAPLUS <<LOGINID::20100910>>

DN 125:222308

OREF 125:41569a,41572a

TI Synthesis of sulfated alkyl oligosaccharides with high anti-HIV activity. Dependence on the alkyl group and the oligosaccharide chain

AU Katsuraya, Kaname; Inazawa, Kazuhiko; Nakashima, Hideki; Uryu, Toshiyuki

CS Institute of Industrial Science, University of Tokyo, Tokyo, 106, Japan

SO Frontiers in Biomedicine and Biotechnology (1996), 3(Biomedical Functions and Biotechnology of Natural and Artificial Polymers), 195-205

CODEN: FBBIET; ISSN: 1067-1897

PB ATL Press

DT Journal

LA English

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L8 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Synthesis of Sulfated Alkyl Laminara-Oligosaccharides Having Potent Anti-HIV Activity and the Relationship between Structure and Biological Activities

AB The synthesis of potentially anti-HIV-active sulfated alkyl laminara-oligosaccharides composed of glucosidic residues of 5-9 was investigated. The anti-HIV activity and the anticoagulant activity of these sulfated alkyl laminara-oligosaccharides were assessed. The synthesis and separation of resp. laminara-oligosaccharides were accomplished in a route starting from acetolysis and hydrolysis of curdlan followed by HPLC. Alkyl oligosaccharides were synthesized using stannic tetrachloride as a Lewis acid catalyst, and then sulfation was carried out with the sulfur trioxide-pyridine complex after deacetylation. Sulfated dodecyl laminarapentoside through laminaranonoside showed almost the same anti-HIV activity. Although no cytotoxicity was detected on a series of dodecyl compds., low-level cytotoxicity appeared with a series of octadecyl compds. On the other hand, the anticoagulant activity increased as the number of sugar units increased from 5 to 9.

AN 1995:131134 HCAPLUS <<LOGINID::20100910>>

DN 122:265867

OREF 122:48553a,48556a

TI Synthesis of Sulfated Alkyl Laminara-Oligosaccharides Having Potent Anti-HIV Activity and the Relationship between Structure and Biological Activities

AU Katsuraya, Kaname; Shoji, Tadao; Inazawa, Kazuhiko; Nakashima, Hideki; Yamamoto, Naoki; Uryu, Toshiyuki

CS Institute of Industrial Science, University of Tokyo, Tokyo, 106, Japan

SO Macromolecules (1994), 27(23), 6695-9

CODEN: MAMOBX; ISSN: 0024-9297

DT Journal

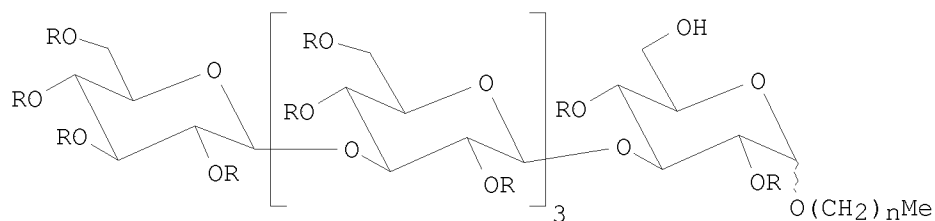
LA English

OSC.G 32 THERE ARE 32 CAPLUS RECORDS THAT CITE THIS RECORD (32 CITINGS)

L8 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Synthesis of sulfated alkyl malto- and laminara-oligosaccharides with potent inhibitory effects on AIDS virus infection

GI



I

AB A series of sulfated alkyl oligosaccharides, e.g. I (n = 9, 11, 15, 17), including a sulfated dodecyl laminarapentaoside and a sulfated octadecyl

maltohexaaside with potent anti-human immunodeficiency virus (HIV) activity, has been synthesized. An alkyl oligosaccharide in which a long alkyl group is bonded to the reducing end of the oligosaccharide was first synthesized in high yield. Peracetylated oligosaccharides reacted with such aliphatic alcs. as 1-decyl and 1-dodecyl alcs. with Lewis acids as catalysts. As in the glycosylation of the α and β peracetylated glycosides, the β anomer reacted exclusively, the acetylation was carried out with a sodium acetate-acetic anhydride at high temps. to maximize the proportion of the β anomer.

AN 1995:18239 HCAPLUS <<LOGINID::20100910>>

DN 123:56417

OREF 123:10179a,10182a

TI Synthesis of sulfated alkyl malto- and laminara-oligosaccharides with potent inhibitory effects on AIDS virus infection

AU Katsuraya, Kaname; Ikushima, Naoya; Takahashi, Nahoko; Shoji, Tadao; Nakashima, Hideki; Yamamoto, Naoki; Yoshida, Takashi; Uryu, Toshiyuki

CS Institute of Industrial Science, University of Tokyo, 7-22-1 Roppongi, Minato-ku, Tokyo, 106, Japan

SO Carbohydrate Research (1994), 260(1), 51-61

CODEN: CRBRAT; ISSN: 0008-6215

DT Journal

LA English

OSC.G 23 THERE ARE 23 CAPLUS RECORDS THAT CITE THIS RECORD (23 CITINGS)

L8 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Oligosaccharide aromatic glycoside sulfate

AB Sulfated aryl glycosides of glucose and galactose oligosaccharides were prepared. Thus, β -D-galactopyranosyl-(1 \rightarrow 4)-[β -D-galactopyranosyl-(1 \rightarrow 4)]2- β -D-glucopyranose peracetate was glycosidated with 4-Me3CCH2CMe2C6H4OH, deacetylated, and sulfated to a degree of sulfation of 87%. The resulting sulfated glycoside had an EC50 against HIV in MT-4 cells of 0.04 μ g/mL and a selectivity index relative to cytotoxicity of >25000.

AN 1993:581150 HCAPLUS <<LOGINID::20100910>>

DN 119:181150

OREF 119:32407a,32410a

TI Oligosaccharide aromatic glycoside sulfate

IN Tadao, Shoji; Takahashi, Nahoko; Ikushima, Naoya; Uryu, Toshiyuki; Yoshida, Takashi; Yamamoto, Naoki; Nakashima, Hideki; Katsuraya, Kaname; Adachi, Koichiro; Kataoka, Fusayo

PA Dainippon Ink Chemical Industry Co., Japan

SO Eur. Pat. Appl., 62 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

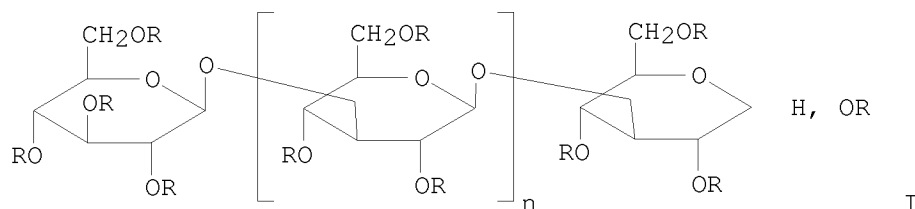
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 532026	A2	19930317	EP 1992-115574	19920911 <--
	EP 532026	A3	19931006		
	R: CH, DE, FR, GB, IT, LI				
	JP 05279381	A	19931026	JP 1992-240558	19920909 <--
	CA 2077993	A1	19930314	CA 1992-2077993	19920910 <--
	US 5498602	A	19960312	US 1992-944077	19920911 <--
PRAI	JP 1991-234728	A	19910913	<--	
	JP 1991-267611	A	19911016	<--	
	JP 1992-19972	A	19920205	<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L8 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Preparation of antiviral sulfated oligosaccharides
GI



AB Oligosaccharides I ($R = H, SO_3M$; $\geq 1 R = SO_3M$; $M = \text{alkali metal, } NH_4$; $n = 0-8$), useful as virucides (no data), are prepared by sulfation of laminarioligosaccharides by sulfation agents. Curdlan (50 g) was treated with β -1,3-glucanase in acetate buffer at 45° for 24 h to give 23.8 g laminaripentaose, which (0.5 g) was sulfated with piperidine-N-sulfuric acid in DMSO to give 0.81 g sulfated laminaripentaose.

AN 1992:6919 HCAPLUS <<LOGINID::20100910>>

DN 116:6919

OREF 116:1367a,1370a

TI Preparation of antiviral sulfated oligosaccharides

IN Uryu, Toshiyuki; Yoshida, Takashi; Nishibashi, Hideji

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 03145496	A	19910620	JP 1989-282783	19891030 <--
	JP 2956090	B2	19991004		
PRAI	JP 1989-282783		19891030	<--	
OS	MARPAT 116:6919				

L8 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Transglycosylation and multiple attack of endo-(1 \rightarrow 3)- β -D-glucanase L-IV from *Spisula sachalinensis*: a new approach to the evaluation of the degree of multiple attack on polysaccharides

AB The marked capability for transglycosylation by endo-(1 \rightarrow 3)- β -D-glucanase L-IV from *S. sachalinensis* to glycerol, D-glucose, Me α - and β -D-glucopyranoside, and Me cellobioside as acceptors was employed to study the multiple attack of the enzyme on laminarin. The enzyme hydrolyzed, .apprx.4 glycosidic bonds during enzyme-substrate interaction. The relative transfer consts. for each acceptor were calculated

AN 1990:587056 HCAPLUS <<LOGINID::20100910>>

DN 113:187056

OREF 113:31559a,31562a

TI Transglycosylation and multiple attack of endo-(1 \rightarrow 3)- β -D-glucanase L-IV from *Spisula sachalinensis*: a new approach to the evaluation of the degree of multiple attack on polysaccharides

AU Bezukladnikov, P. W.; Elyakova, L. A.
CS Pac. Inst. Bioorg. Chem., Vladivostok, 690022, USSR
SO Carbohydrate Research (1990), 203(1), 119-27
CODEN: CRBRAT; ISSN: 0008-6215
DT Journal
LA English

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L8 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Laminarioligosaccharides as food preservatives and their preparation
AB Food preservatives contain laminarioligosaccharides prepared by enzymic or acidic hydrolysis of β -1,3-glycosylsugars. The preservatives may contain amino acids. Laminarioligosaccharides do not change flavor of foods. Curdlan was enzymically hydrolyzed in a citrate buffer at 45° for 12 h to give white powder containing laminaribiose 27.1, laminaritriose 50.3, laminaritetraose 12.4, and other laminarioligosaccharide 10.2%. Bread containing the laminarioligosaccharides was able to be preserved for longer period. Antiseptic effect of the laminarioligosaccharides is described.

AN 1990:496383 HCAPLUS <<LOGINID::20100910>>

DN 113:96383

OREF 113:16267a,16270a

TI Laminarioligosaccharides as food preservatives and their preparation

IN Nishibashi, Hideji; Katabami, Tadashi; Yamada, Masaharu

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02109964	A	19900423	JP 1988-263384	19881019 <--
	JP 2699470	B2	19980119		
PRAI	JP 1988-263384		19881019	<--	

L8 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN

TI A process for epimerization of sugars

AB A process for epimerization of sugars involves adding the sugar to a solution of a salt of a metal selected from Ni, Co, Ca, Sr, La, Ce, Pr, Nd, Y, or In, and polyamine R1R2[NR5(CH2)m]nNR3R4 [m = 2, 3; n = 1-9; R1-R5 = H, C1-3 alkyl], or a polyether H(OCHR6CHR7)pOH (p = 2-400; R6, R7 = C1-3 alkyl) and heating the mixture CaCl2.2H2O 0.5, 2,5,8-trimethyl-2,5,8-triazanonane (I) 0.5, and D-glucose 0.5 mmol were dissolved in 8 mL MeOH and the mixture was heated at .apprx.65° under reflux, cooled, diluted with 15 mL MeOH, and adjusted to pH 4 with 1N aqueous H2SO4. After 1 h, the mixture was passed through ion exchanger columns of Dowex 50W-X2 and MSA-1, removing CaCl2 and I, to give 83% of a 36:64 mixture of D-glucose and D-mannose.

AN 1989:173690 HCAPLUS <<LOGINID::20100910>>

DN 110:173690

OREF 110:28833a,28836a

TI A process for epimerization of sugars

IN Yoshikawa, Sadao; Matsumura, Shuichi; Yano, Shigenobu; Takizawa, Satoshi; Komiyama, Shinji

PA DIC Hercules, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 63115893	A	19880520	JP 1986-258311	19861031 <--
PRAI	JP 1986-258311		19861031	<--	

L8 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN
 TI Laminaridigosaccharides as bifidobacterium growth promoters
 AB Laminarioligosaccharides are effective in enhancing the growth of the beneficial microorganisms Bifidobacterium. Curd run 50 g suspended in 0.01M phosphate buffer, pH 6.0, 1L was mixed with end type β -1,3-glucanase (200 units) prepared from Streptomyces DIC-108. The mixture was incubated at 45° for 2 h to give laminarioligosaccharide IV that markedly enhanced the growth on nutrient agar plates of Bifidobacterium, somewhat Lactobacillus casei and Streptococcus faecalis, but not Escherichia coli.

AN 1988:109473 HCAPLUS <<LOGINID::20100910>>

DN 108:109473

OREF 108:17875a,17878a

TI Laminaridigosaccharides as bifidobacterium growth promoters

IN Nishibashi, Hideji; Katabami, Tadashi; Matsubayashi, Tadao

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 62163685	A	19870720	JP 1986-4234	19860114 <--
PRAI	JP 1986-4234		19860114	<--	

L8 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2010 ACS on STN
 TI Laminaripentaose
 AB Laminaripentaose (I) is produced by reacting β -1,3-glucanase (II) from Streptomyces with β -1,3-glycosyl polysaccharide or its partial hydrolyzate. Thus, 5 mL solution containing 2.2 units II prepared from a culture broth of S. matensis DIC-108 (FERM-P 6593) was added to 0.25 g curdlan (n = 550) and the mixture was incubated at 45° for 24 h to yield 188 mg I.

AN 1986:532159 HCAPLUS <<LOGINID::20100910>>

DN 105:132159

OREF 105:21313a,21316a

TI Laminaripentaose

IN Nishibashi, Hideji; Katabami, Tadashi; Oyama, Mikio; Matsubayashi, Tadao

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 61092589	A	19860510	JP 1984-212716	19841012 <--
	JP 04037719	B	19920622		
PRAI	JP 1984-212716		19841012	<--	